Supplementary Figures

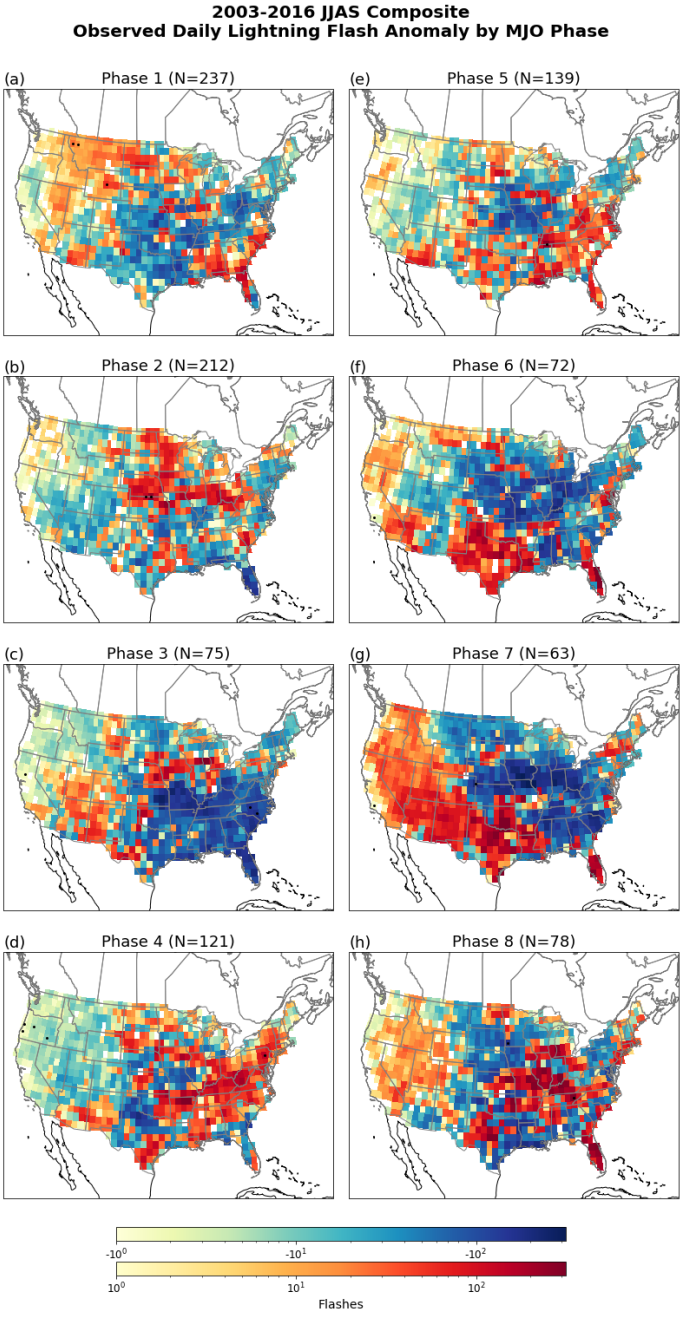

FIG. S1. 2003–2016 JJAS composites of daily lightning flash count anomalies by (active) MJO phase. Anomalies are with respect to a daily climatology. Black stippling indicates statistically significant values at the 5% level based on a permutation test that accounts for seasonality.

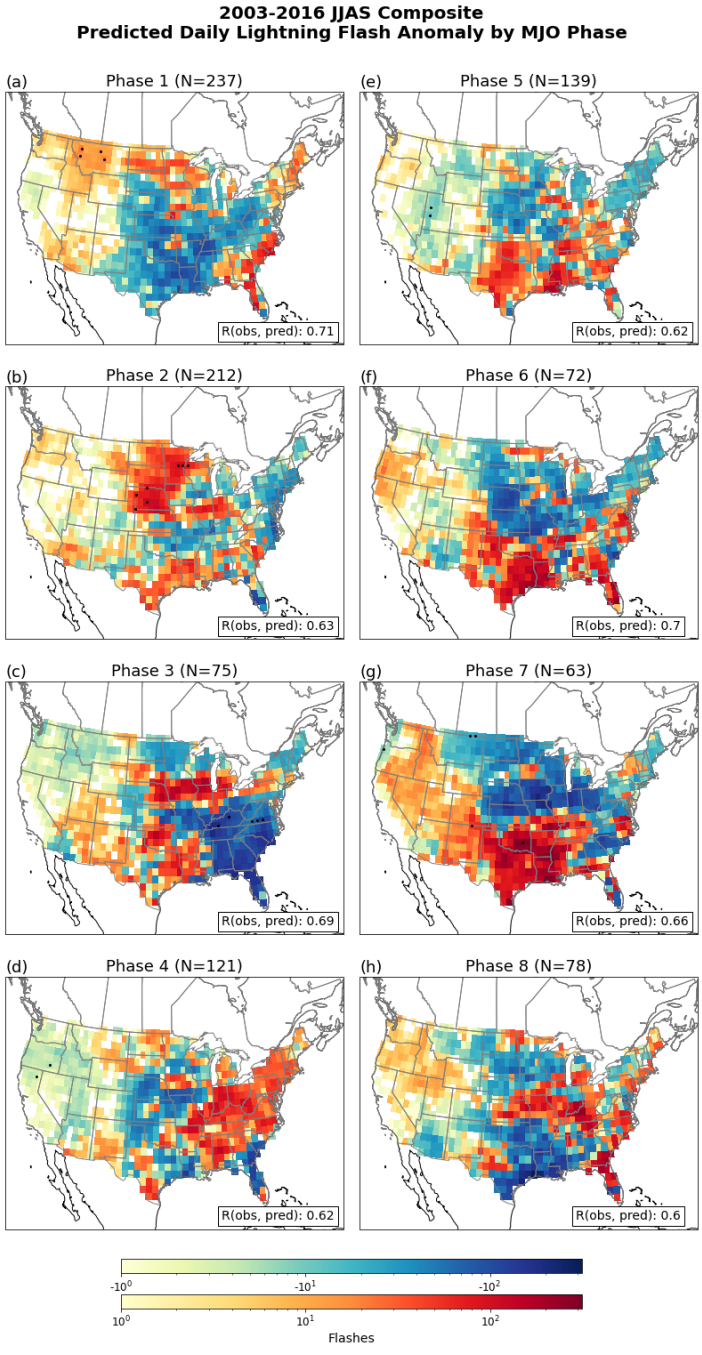

FIG. S2. Same as Supp. Fig. S1 but with 2003–2016 PR predicted values. The pattern correlation between observed and PR predicted composite is shown on bottom-right panel.

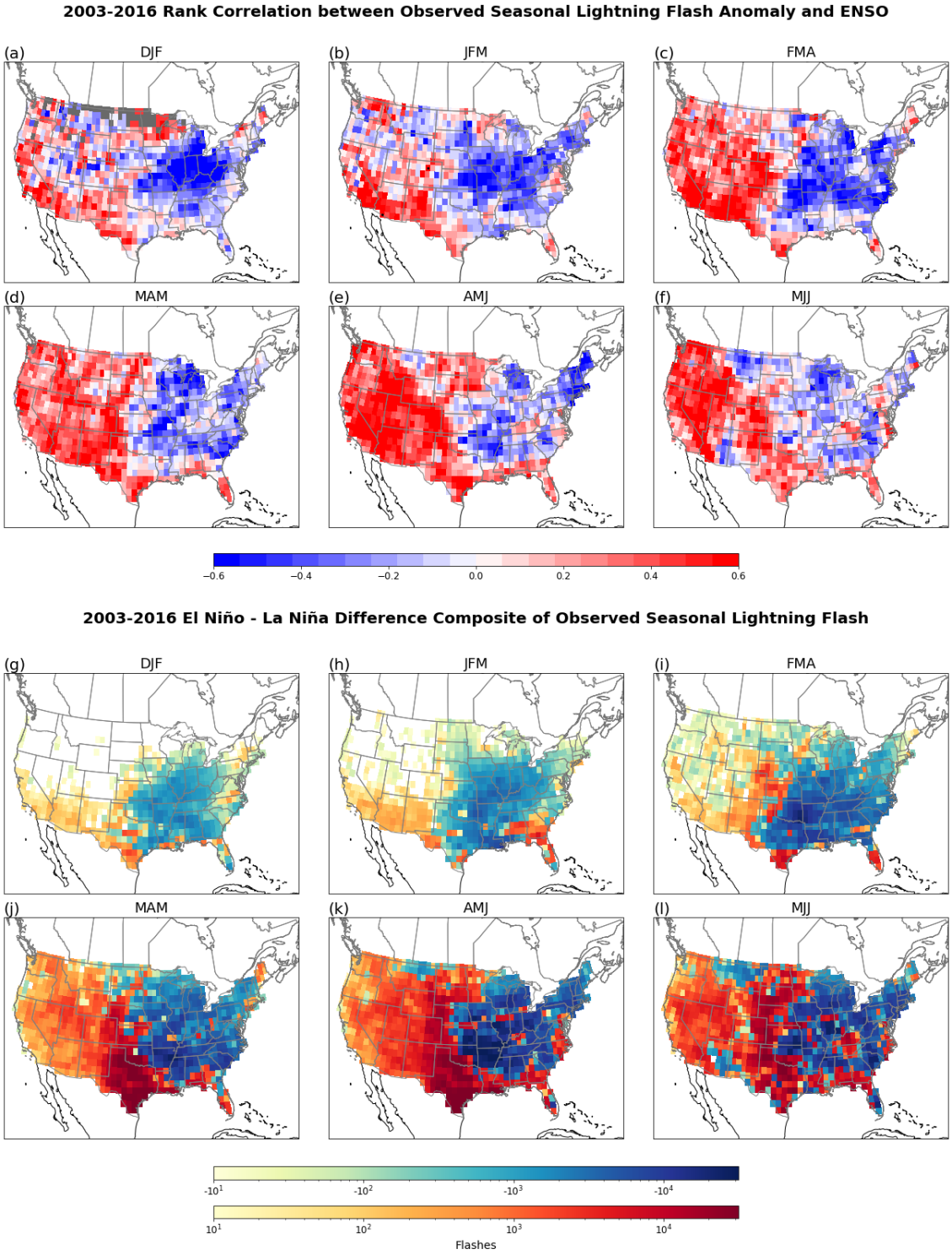

FIG. S3. (a-f) 2003-2016 observed rank correlation between seasonal lightning flash anomaly and ENSO. (g-l) 2003-2016 observed difference composite (El Niño - La Niña) of seasonal lightning flash.

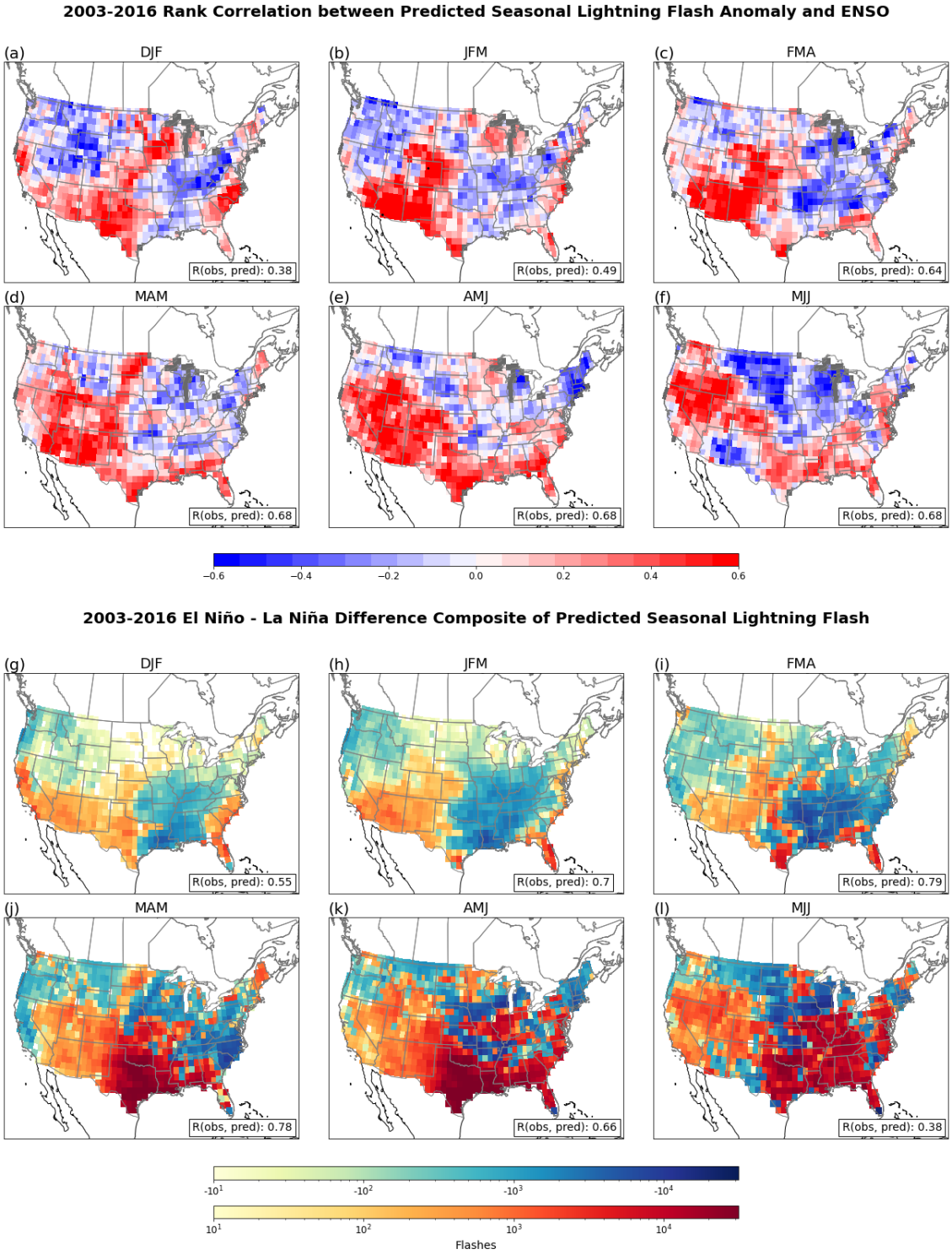

FIG. S4. Same as Fig. S3 but with 2003–2016 PR predicted flash data. The pattern correlation between observed and PR predicted composite is shown on bottom-right panel.

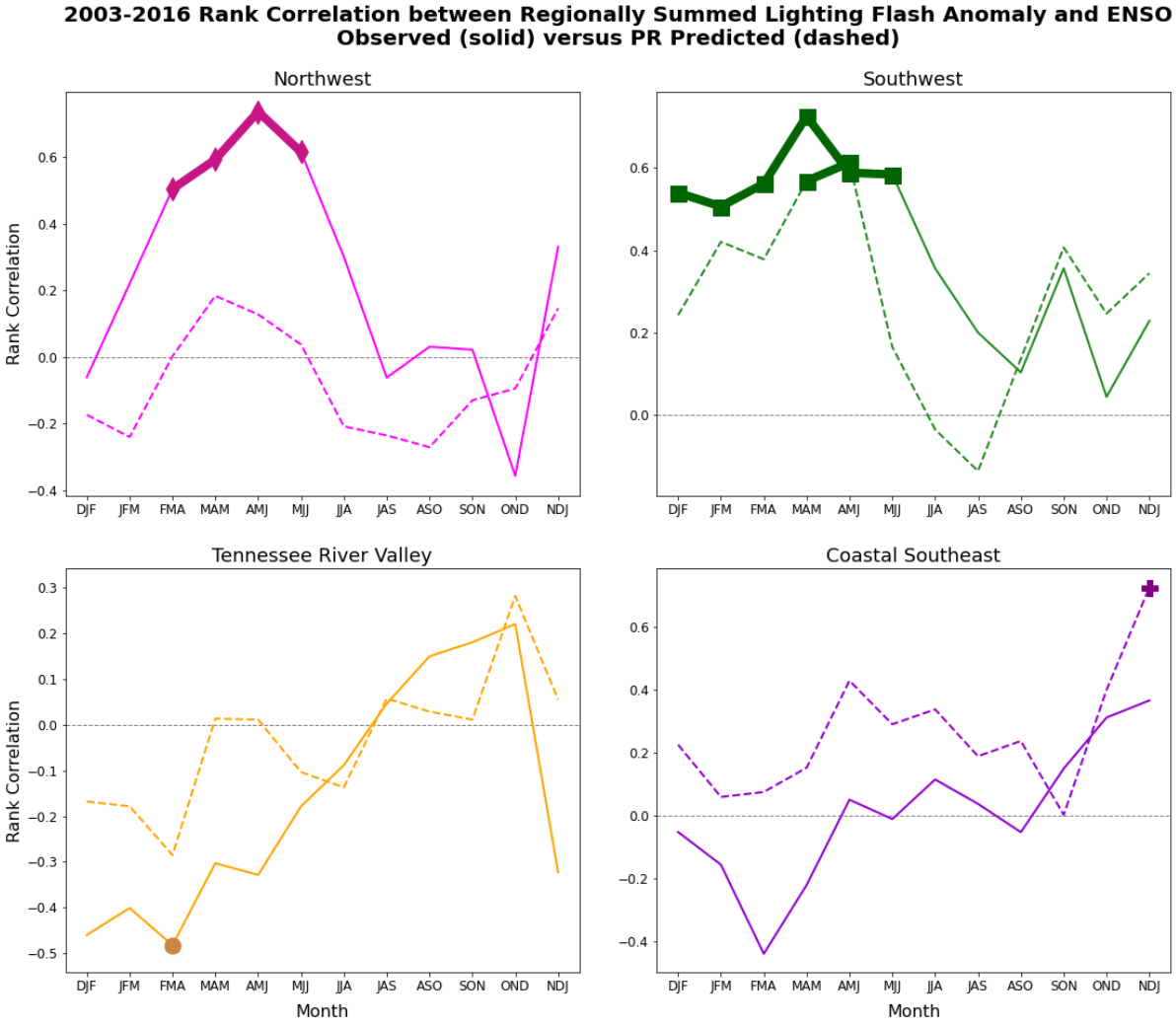

FIG. S5. 2003–2016 Rank correlation between ENSO and regionally summed lightning flash anomaly by season, using observed flash anomalies (solid) versus PR predicted flash anomalies (dashed). Markers and any thicker lines between points indicate seasons when rank correlation is statistically significant at the 90% confidence level determined by bootstrapping method with 1000 iterations.